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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,237	04/12/2004	Gareth Knowles	QT-2004-12-NP	4987

7590 10/05/2005

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Hatboro, PA 19040

EXAMINER

LE, HOANGANH T

ART UNIT	PAPER NUMBER
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2821

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/823,237	KNOWLES ET AL.	
	Examiner	Art Unit	
	HoangAnh T. Le	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

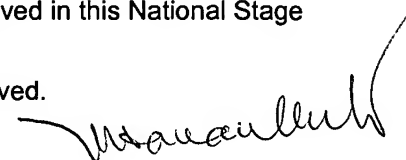
Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.



HoangAnh Le
Primary Examiner

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 16-17, 30, 31, and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 16, the word "preferably" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

In claim 30, "said adaptive circuitry" has no antecedent basis.

In claim 33, "said soft circuit" has no antecedent basis.

Claim Objections

4. Claim 12-13 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 12-13 fail to further limit the subject matter of the claim 7.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-8,10-13, and 18-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Jackson (the US patent No. 6,885,345).

The Jackson reference teaches in figures 1-6 a reconfigurable adaptive circuit matrix comprising: at least one sheet of dielectric material (col. 6, lines 1-4); a plurality of secondary electronic circuits 10 (col. 6, lines 1-20) arranged in a matrix and supported on or within each the dielectric material, one or more the secondary electronic circuits effected by at least one characteristic of the dielectric material (col. 7, lines 33-45); an external switch means 12,14 for electrically activating one or more of the secondary circuits when the switch means is activated (figure 1); and means for varying the characteristic of the secondary electronic circuits to vary operation (figure 2). The dielectric material is a ferrotunable material (col. 7, line 48). One or more the secondary electronic circuits having a voltage adjustable device thereon (col. 6, lines 31-36). The secondary electronic circuits provide adaptation of radiation or reception

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characteristics of an electromagnetic coupling arrangement comprising at least one adjustable passive component (figure 2). The secondary electronic circuits provide a reconfigurable antenna and the dielectric layer has a non-conducting outer surface, the secondary electronic circuits comprising at least one adjustable passive component and mounted to an antenna substrate (see abstract). The secondary electronic circuits provide a reconfigurable antenna and the dielectric layer has a non-conducting outer surface, the secondary electronic circuit comprising at least one adjustable passive component and at least one active component mounted to an antenna substrate (see abstract). Figure 1 shows a plurality of conducting patches 10. The non-conducting surface is a first surface of a dielectric layer having a second surface supporting an electrically conductive layer (col. 5, lines 57-65).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 9 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson (cited above) in view of Yandrofski et al (the US Patent No. 5,589,845).

The Jackson reference teaches every feature of the claimed invention, excluding the dielectric layer comprising a plurality of layers of crystalline polymer.

The Yandrofski et al reference teaches the use of a dielectric layer

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comprising a plurality of layers of crystalline polymer in order to tune the frequency of the antenna (col. 6, line 42 and see abstract).

Since one of ordinary skill in the art would recognize the benefit of tuning the frequency of the antenna, it would have been obvious to provide Jackson with the dielectric layer comprising a plurality of layers of crystalline polymer as taught by Yandrofski et al.

9. Claims 38-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson (cited above) in view of Chang (the US Patent No. 6,260,087).

The Jackson reference teaches every feature of the claimed invention, excluding a microcontroller circuit having a plurality of programmable microprocessors or digital signal processors. non-volatile volatile RAM , interface peripherals and clock/timing circuits, the interface peripherals are comprised of a plurality of digital to analog converter circuits, the interface peripherals are comprised of a plurality of logic circuits, and the logic circuits are comprise of a plurality of programmable logic devices including GAL, PAL, PLD, CPLD or FPGA.

The Chang reference teaches the use of comprising a microcontroller circuit having a plurality of programmable microprocessors or digital signal processors. non-volatile volatile RAM , interface peripherals and clock/timing circuits, the interface peripherals are comprised of a plurality of digital to analog converter circuits, the interface peripherals are comprised of a plurality of logic circuits, and the logic circuits

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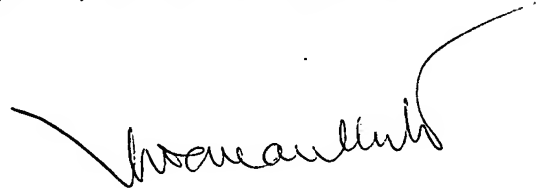
are comprise of a plurality of programmable logic devices including GAL, PAL, PLD, CPLD or FPGA are well known in the art (col. 2, lines 24-29).

Since one of ordinary skill in the art would recognize the benefit to alternate ICs, it would have been obvious to provide Jackson with programmable logic devices as taught by Chang.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HoangAnh T. Le whose telephone number is (571) 272-1823. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HoangAnh Le
Primary Examiner